

Technical Note

McAfee ePO 3.5 and McAfee Antivirus 8.0 Certification for NICE 8.80

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Synopsis	This technical note displays the procedures for McAfee ePO 3.5 and McAfee Antivirus 8.0 Certification for NICE 8.80.

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Purpose and Scope

This document summarizes the certification that was performed for NICE 8.80 recording system when using McAfee 8.0 and EPO server 3.5 clients.

NICE Servers

Server	NICE Version	CPU	RAM	OS + SP
NiceLog	8.80 SP8	233MHz	256MB	Win2000 Professional + SP4
CLS	8.80 (Core SP3, Integrations SP3)	2.4 GHz	512MB	Win2000 Server + SP4
Storage Center	8.80 SP5	800MHz	256MB	Win2000 Professional + SP4
Web Server	8.80 SP6	2.4 GHz	1GB	Win2000 Server + SP4

Test Description

Running the EPO tasks

1. When the Logger is in resting state - no calls recorded and no calls are archived, start EPO task, then run recording system.
2. When the Logger is under high load (all calls are recorded and archived), then begin with EPO tasks.

In both scenarios, specify the EPO utilization that will keep all recording and archiving functions with no errors and/or exceptions.

Table 1: EPO Tasks

Test	Test Description	Test Results	Performance for CPU and memory
Pre-EPO tests	Verify that in the specified system load, all calls are being recorded with no errors/exceptions, prior to EPO task run	SC archiving with default 10 connections caused high CommManager CPU. As a result, Logger failed to record by CLS commands, and many calls entered with exceptions (#8, 12 and 17) To enable good Logger recording performance, we reduced the amount of SC connections to 3.	<ol style="list-style-type: none"> a. Per connection, 2000-3000 files are being archived (per hour) b. SC archiving only, takes about 30-40% CommManager CPU on the Logger
Simulate recordings problem	During system running with its specified performance, Running the EPO tasks in 100% utilization	When running the EPO tasks in 100% utilization the Logger did not record any call, mostly with exception 8 (“unspecified error in Logger”)	Scan32 takes almost 100% CPU CommManager is almost on 0% CPU All calls entered with exception 8.

Table 1: EPO Tasks

Test	Test Description	Test Results	Performance for CPU and memory
Reduce EPO Utilization to 30%	When running the ePO tasks on 30% utilization the logger continued to function with no errors.	All calls are inserted to DB with Recorded "Yes" and Status "OK" Voice is archived to Storage Center.	Storage Center archiving tasks takes about 30% CommManager CPU in the Logger. CLS pause-resume recording commands takes about 30% CommManager CPU in the Logger. Running the EPO tasks for an hour – all calls were recorded in status OK
Run EPO Utilization 50%	Set CommManager service from Task Manager to "Real Time" priority Run same test as #3, but with higher (50%) utilization	We expect to conclude if the process Priority definition is effective for the CommManager, in a way it keeps its required CPU, while EPO server tasks are not harmed (=not display error or stop running)	All calls were recorded with status OK Logger runs with high CPU (not recommended in the long term)
Functionality test on McAfee servers	Certify functional actions with servers that are installed with McAfee 8.0	Passed successfully, to review the tests and actions response time. See attached test report (separate)	

Remarks and Notes

1. DAT update does not have Utilization setting option, it does not affect the performance; the most consuming-resources task is the Scan.
2. Enforcing the EPO task caused after a few hours of high load, the logger's CPU time rises dramatically to around 95%. At this point the entire machine hangs, the logger doesn't start unless the McAfee is disabled. When disabling the McAfee the logger manages to start, however the CPU of the machine remains very high.
3. From this, we conclude that it is recommended to set the CommManager priority to Real Time in the Task Manager.

Conclusions

The parameters affecting recording performance and recommendations:

- a. **CommManager priority:** It is highly recommended to set the ComMgr process of the logger at the highest priority (real-time), to prevent the process of the EPO taking all of the CPU and thus preventing the logger from running during the execution of the ePO tasks. (**Note:** Priority reverts back to Normal after machine restart).
- b. **The number of open connections from the Storage Center to the logger;** It is recommended to lower the number of connections from the default 10, to decrease the load on the logger. We found that 3 was the optimal solution for the above mentioned settings. With more open connections, about 50% of the calls were not recorded (regardless EPO) due to exception 8.
- c. **The Virus Scan task should run in utilization lower than 100%** to enable the logger to keep functioning during the scan. In our settings it was found that 30% utilization didn't interrupt the logger's performance. We do not recommend a higher utilization than this.



NOTE:

- VoIP and PCI loggers running on Win2000 are approved to use ePO 3.5. This is based on the following facts:
 - PCI Loggers and VoIP loggers use a stronger CPU
 - Certification for Win2000 ISA based loggers has been completed.